

IN THE DRAWINGS

No objection to the drawings was indicated by the Examiner. Unless an indication is provided by the Office to the contrary, Applicant assumes the drawings to be acceptable.

REMARKS

Claims 1-42 remain pending in this application. Claims 33-42 have been allowed. Claims 30 and 31 call for allowable subject matter. Claims 1-29 and 32 are rejected.

The Examiner rejected claims 1-32 under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,735,302 (*Caine*). Applicant respectfully traverses this rejection.

Applicant respectively asserts that *Caine* does not teach novel concepts of claim 1 of the present invention for various reasons provided below. *Caine* discloses a telephone line interface circuit that has a SLIC comprising an operational amplifier. According to *Caine*, the operational amplifier includes a composite MOSFET-bipolar complimentary symmetry driver stage. *Caine* provides for bi-directional communication between an analog telephone device and a digital transmission medium. A coder-decoder (CODEC) disclosed by *Caine* translates analog signals that is received from the SLIC into digital bits. *See*, col. 2, lines 46-54. The CODEC also translates digital bits received from the digital transmission into analog signals. *Id.* The Examiner cites various portions of *Caine* to disclose or read upon various elements of the present invention. However, Applicant respectively asserts that the first and second sensing circuitry called for by claim 1, in combination with the upstream driver adapted to subtract the second voltage relating to the second sensing circuitry from the first voltage relating to the first sensing circuitry, is not taught disclosed or suggested by *Caine*. The Examiner cites for example, the sensing resistor 826 in *Caine* in order to read upon the first sensing circuitry and the resistor 846 to read upon the sensing circuitry. *See*, col. 13 lines 52-65. The sense circuit resistor 826 in *Caine* refers to the sensing of the metallic loop current. The metallic loop current generally

refers to a situation where equal amount of currents flow out of the tip node into the ring node. In contrast to *Caine*, the first sensing circuitry called for by claim 1 of the present invention calls for sense circuitry being coupled to the output driver and being adapted to sense a current on the subscriber line for generating a first signal. This is an example of an element of claim 1 that is not disclosed or suggested by *Caine*.

Additionally, the Examiner attempts to read upon the balancing network called for by claim 1 of the present invention by citing the driver 806 along with the sensing resistor 846. However, the driver 806 in *Caine* refers to the driver of the ring signal, wherein a signal is passed through the resistor 846 to the ring mode. In contrast to *Caine*, claim 1 calls for a balancing network that receives at least a portion of the downstream signal, which is used by the second sensing circuitry to generate the second voltage, which is a concept that is not disclosed by *Caine*. An examination of Figure 9 of *Caine* reveals that the balancing network is actually missing from the disclosure of *Caine*. Therefore, yet another element of claim 1 is not disclosed or suggested by *Caine*.

An example of the balancing network may be found in Figure 2 of the present invention, which clearly illustrates a balancing network. The reference to the balancing network Z_{bal} 250 and the resistor 240 illustrated in Figure 2 is for illustrated purposes only and is not meant to limit all claims of the present invention. Claim 1 calls for a balancing network, which is not disclosed by *Caine*. Furthermore, claim 1 calls for a second sensing circuitry adapted to sense the current relating to the portion of the downstream signal passing through the balancing network; wherein the first sensing circuitry senses the current associated on the current

subscriber line. Here again, the Examiner simply cites the sensing resistor 846 associated with the ring signal to read upon this element of claim 1. *See*, col. 4, lines 2-3. The sensing resistor of *Caine* cited by the Examiner relates to the metallic loop current. *See*, col. 13, line 54-55 and col. 14, lines 2-4. The first and second sensing resistors cited by the Examiner as being read upon by resistor 826 and resistor 846 of *Caine*, is actually directed to sensing the metallic loop current in *Caine* (see Figure 9 for example). The first and second sensing resistors called for by claim 1 of the present invention call for respectively sensing current on the subscriber line, and the current associated with downstream signal passing through a balancing network, which are elements not taught or suggested by *Caine*. Additionally, as described above, the balancing network is not disclosed or suggested by *Caine*.

Furthermore, *Caine* does not disclose an upstream driver to subtract a second voltage from the first voltage in order to generate an upstream signal. Although *Caine* discloses a feedback signal being summed with the received voice signal (see col. 15, lines 46-48), it refers to the feedback signal being relating to a representation of the metallic loop current (see col. 15, lines 1-3). *Caine* does not disclose subtracting the second voltage, which refers to a portion of the downstream signal passing through the balancing network, from the first voltage, which is associated with the current relating to the subscriber line, which are concepts called for by claim 1 of the present invention. Further, as described above, *Caine* does not disclose a balancing network, which is called for by claim 1 of the present invention. Therefore, for at least the various reasons cited above, *Caine* does not disclose or suggest all of the elements of claim 1 of the present invention.

Caine is generally directed towards facilitating communications between an analog telephone system and a digital transmission medium. *See*, col. 2 lines 47-50. *Caine* does not disclose the novel current sensing and the voltage generation of the first and second voltages based on subscriber lines and balancing networks, and subtracting portions of the voltages to provide an upstream signal, as called by claim 1 of the present invention. Therefore, all of the elements of the claim 1 are not taught as suggested by *Caine*. Accordingly, claim 1 of the present invention is allowable.

Additionally, claim 12 calls for a line card, which comprises a subscriber line interface circuit that calls for the first sensing circuitry, the second sensing circuitry, and the upstream driver, which are elements that are similar to claim 1. Therefore, these elements are not taught, disclosed, or made obvious by *Caine*, for at least the reasons described above. Additionally, claim 21 provides a method claim that calls for sensing a current to generate a first voltage, sensing a current in a portion of the downstream signal passing through a balancing network to generate a second voltage and subtracting the second voltage from the first voltage, which are elements that also not taught, disclosed, or made obvious by *Caine*, for at least the reasons cited above. Therefore, independent claims 1, 12, and 21, are not disclosed or made obvious by *Caine*, and, therefore, are allowable for at least the reasons cited above.

Independent claims 1, 12, and 21, are allowable for at least the reasons cited above. Additionally, dependent claims 2-11, 13-20, and 22-32, which depend from independent claims 1, 12, and 21, respectively, are also allowable for at least the reasons cited above.

Applicant acknowledges and appreciates that the Examiner has allowed the claims 33-42. Also, Applicant acknowledges and appreciates that the Examiner has indicated that claim 30-31 contain allowable subject matter. However, in light of the arguments provided herein it is respectfully asserted that all of the claims of the present invention are allowable.

Reconsideration of the present application is respectfully requested.

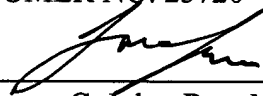
If for any reason the Examiner finds the application other than in condition for allowance, the **Examiner is requested to call the undersigned attorney** at the Houston, Texas telephone number (713) 934-4069 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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